



No. 865	Author Steven E. Backs, Wildlife Research Biologist	Date 7/13/04
	Title Wild Turkey Population Indices - Spring, 2004	

**Abstract:** The mean number of wild turkeys heard along 10 roadside counts during April 2004 was 0.98 gobblers heard per stop, an 8% increase compared to the gobbling index of 0.91 in 2003. The long term trends show a steady increase since 1987, especially the last 5 years. Four additional roadside routes were surveyed to assess relative wild turkey population levels on Crane Naval Base post January-February trap/transplant project. The mean gobblers heard per stop on Crane was 1.82, similar to gobbling index for the Jefferson route in southeast Indiana, an area of high turkey density.

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Gobbler counts are conducted annually during April to determine the relative population trends of wild turkeys in the areas surveyed. In 2004, 10 traditional areas were surveyed in portions of 14 counties. Roadside gobbler trend routes were conducted in conjunction with roadside trend routes for ruffed grouse. Each route has 15 predesignated listening stops along 10-20 miles of rural roadways. The average number of gobblers heard on 10 roadside trend routes ranged from 0.20 to 1.87 gobblers heard per stop (**Table 1**). Overall, an average of 0.98 gobblers were heard per stop in 2004. Four additional roadside gobbler counts were conducted to assess the wild turkey population levels on the Crane Naval Base following the removal of 47 male birds in January-February for the 2004 wild turkey restoration project. The mean gobblers heard per stop for the Crane routes was similar to the gobbling index of the Jefferson route conducted in southeast Indiana, a region that supports high density of wild turkeys.

While roadside routes are not accurate indicators of annual trends in wild turkey populations, they provide some long term (5 yrs) trends for a specific area and provide information to compare areas relative to each other (**Table 2**). Weather conditions during the survey period can contribute the variability of annual trends. Annual variations may also reflect the proportion of 2-year-old gobblers in the population rather than actual population trends over the long term. It should be noted that the 18 survey years represent a period of time when most turkey populations were undergoing steady growth and is reflected in the trend of the combined mean for all 10 routes (**Figure 1**). As wild turkey populations mature and population growth stabilizes, the gobbling count indices will begin fluctuating above and below a long term mean unless habitat conditions or harvest strategies change the impact of environmental influences.



Table 1. Wild turkeys heard on roadside counts in Indiana between 30 March to 15 April 2004.

County/Area	No. of Routes/ Stops	No. of Repetitions (for/rev)	Total Turkeys Heard	Total Seen	Highest Number Heard/Rt.	Turkeys Heard 1/ Per Stop	
						2004	2003
Jackson, Brown, Monroe (Hickory Ridge, USFS)	1/15	4	26	1	12	0.80	0.53
Owen-Putnam	1/15	2	4	0	3	0.20	0.20
Perry Co. (Oriole-St.Croix-USFS)	1/15	2	31	0	16	1.07	0.60
Washington State Forest	1/15	2	39	1	20	1.33	1.47
Lawrence & Orange (Lost River - E, USFS)	1/15	3	21	0	13	0.87	1.07
Martin & Orange (Lost River - W, USFS)	1/15	2	19	0	11	0.73	0.67
Morgan-Monroe State Forest	1/15	2	26	0	20	1.33	0.80
Greene	1/15	2	14	0	9	0.60	0.60
Orange (Little Africa, USFS)	1/15	2	26	3	15	1.00	1.00
Jefferson	1/15	2	53	4	28	1.87	2.13
Means						0.98	0.91
Crane Naval Base *							
NW-Cent. Yellow Rt	1/15	2	41	5	22	1.47	N/A
NE Pink Rt.	1/15	2	35	12	21	1.40	N/A
SE-Cent. Orange Rt.	1/15	2	37	3	19	1.27	N/A
South Blue Rt.	1/15	2	60	13	47	3.13	N/A
Mean						1.82	N/A

1/ Indices calculated using route with highest count.

\* Special interest routes conducted post turkey trapping January-February 2004.

Table 2. Wild turkey roadside gobbling counts during April in Indiana from 1987 to 2004.

Year	Gobblers Heard Per Stop *										YEAR MEAN
	HICKORY	OWPUT	PERRY	WASH	LR-EAST	LR-WEST	MORGAN	GREENE	LICKCR	JEFFERSON	
1987	1.10	0.07	0.00	0.20	0.53	NR	0.27	0.00	0.00	1.00	<b>0.35</b>
1988	0.73	0.13	0.13	0.00	0.47	NR	0.20	0.07	0.00	1.13	<b>0.32</b>
1989	1.13	0.00	0.21	0.00	0.87	NR	0.20	0.00	0.47	0.73	<b>0.40</b>
1990	0.80	0.13	0.20	0.00	1.00	1.27	0.27	0.07	0.73	0.53	<b>0.50</b>
1991	0.33	0.20	0.40	0.00	0.87	0.53	0.33	0.07	0.87	1.07	<b>0.47</b>
1992	0.73	0.07	0.20	0.00	0.80	1.87	0.00	0.07	0.67	0.53	<b>0.49</b>
1993	0.47	0.00	0.47	0.00	0.27	0.53	0.07	0.20	0.47	1.20	<b>0.37</b>
1994	0.53	0.13	0.47	0.00	0.73	0.27	0.13	0.27	0.80	0.80	<b>0.41</b>
1995	0.67	0.00	0.80	0.00	0.93	0.73	0.00	0.13	0.80	1.53	<b>0.56</b>
1996	1.13	0.33	0.80	0.07	0.60	1.47	0.27	0.13	0.53	0.80	<b>0.61</b>
1997	0.67	0.20	0.87	0.07	0.73	0.47	0.47	0.00	0.60	0.93	<b>0.50</b>
1998	1.40	0.27	0.47	0.40	0.60	0.53	0.33	0.67	0.27	0.80	<b>0.57</b>
1999	0.80	0.60	0.47	0.27	1.27	0.53	0.67	0.40	0.87	1.20	<b>0.71</b>
2000	0.60	0.20	0.53	0.67	1.27	0.47	0.27	0.67	1.20	1.33	<b>0.72</b>
2001	0.73	0.53	0.60	0.60	0.67	0.73	0.33	0.33	0.93	1.73	<b>0.72</b>
2002	0.33	0.60	0.53	0.80	1.27	0.93	0.53	0.20	1.13	1.33	<b>0.77</b>
2003	0.53	0.20	0.60	1.47	1.07	0.67	0.80	0.60	1.00	2.13	<b>0.91</b>
<i>Cumm. Mean</i>	<i>0.75</i>	<i>0.22</i>	<i>0.46</i>	<i>0.27</i>	<i>0.82</i>	<i>0.79</i>	<i>0.30</i>	<i>0.23</i>	<i>0.67</i>	<i>1.11</i>	<b><i>0.55</i></b>
<i>5 Yr Mean</i>	<i>0.60</i>	<i>0.43</i>	<i>0.55</i>	<i>0.76</i>	<i>1.11</i>	<i>0.67</i>	<i>0.52</i>	<i>0.44</i>	<i>1.03</i>	<i>1.55</i>	<b><i>0.76</i></b>
<b>2004</b>	<b>0.80</b>	<b>0.20</b>	<b>1.07</b>	<b>1.33</b>	<b>0.87</b>	<b>0.73</b>	<b>1.33</b>	<b>0.60</b>	<b>1.00</b>	<b>1.87</b>	<b>0.98</b>

\* = Indices calculated using route with highest count.

HICKORY = Hickory Ridge (USFS), Lawrence and Jackson Counties

OWPUT = General area of Owen-Putnam St. Forest

PERRY = northern portion of Perry Co.(USFS)

WASH = general area of Jackson-Washington St. Forest in Washington County

LR-EAST = Lost River Unit - East, USFS, Lawrence and Orange Counties.

LR-WEST = Lost River Unit - West, USFS, Orange and Martin Counties.

MORGMON = general area of Morgan-Monore St. Forest in Morgan county.

GREENE = eastern Greene County

LICKCR = Lick Creek Area, USFS, in Orange County.

JEFFERSON = Jefferson County

**YEAR MEAN** = Arithmetic average value for all routes for a respective year.

*Cumm. Mean* = *Cumulative mean for a particular route.*

*5 Yr Mean* = *mean for 5 years previous to survey year.*



# Figure 1. Roadside Gobbling Indices

